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EXAMINER

TORRES, MELANIE

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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 09/938,793
Filing Date: August 24, 2001
Appellant(s): NISLEY ET AL.

MAILED

SEP 07 2006

GROUP 3600

Patrick S. Yoder
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed March 23, 2006 appealing from the Office action mailed October 31, 2005.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

4,859,460	Grzina	1-1990
4,943,068	Hatch	7-1990

Art Unit: 3683

6,149,158	Tripathy	11-2000
4,368,933	Motsch	1-1983
4,348,067	Tooley	9-1982

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

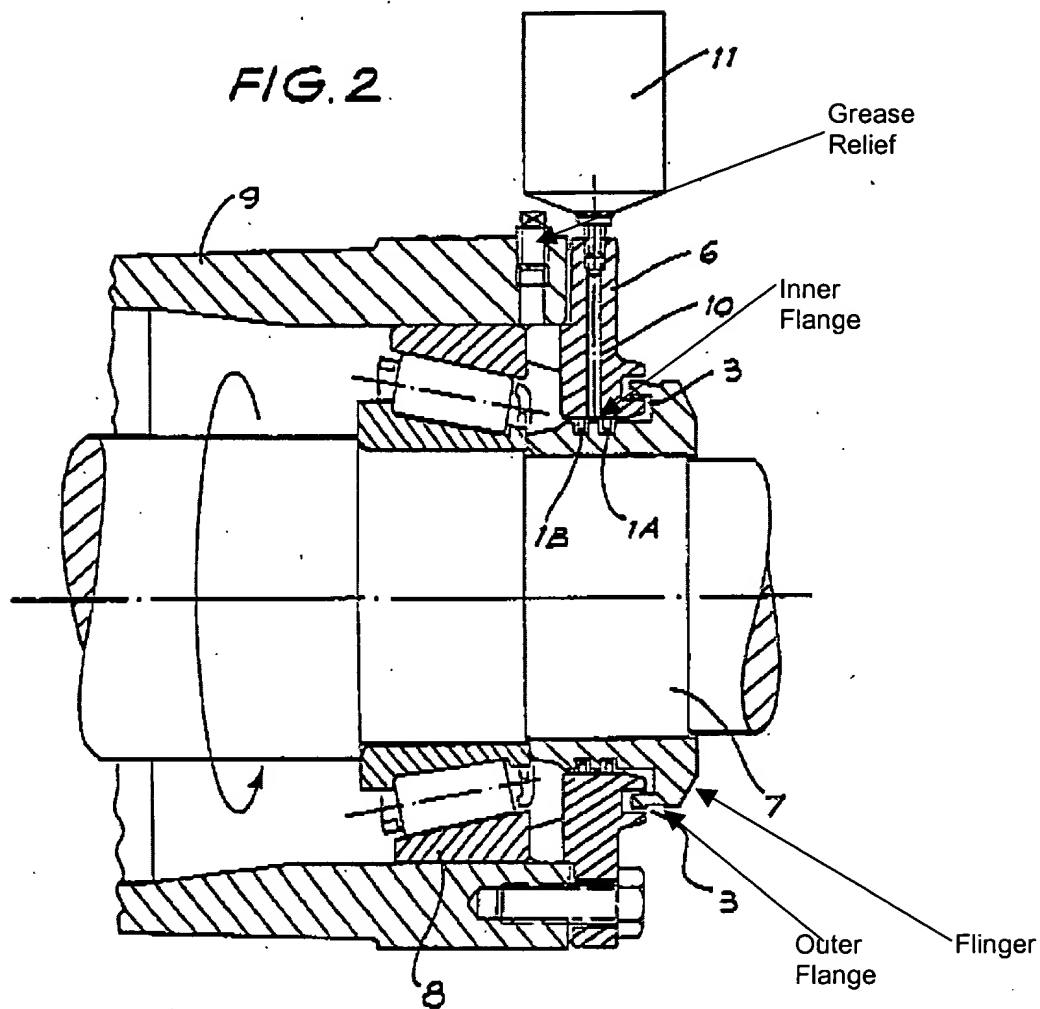
(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-4, 7, 12-17 and 21 are rejected under 35 U.S.C. 102(b) as being anticipated by Grzina.

Re claim 1, Grzina discloses a bearing insert (8), a bearing housing (9) adapted to house the bearing insert, a cover (6) removably secured to the bearing housing, wherein the cover extends outwardly beyond an outermost edge of the bearing housing and a rotatable flinger (3) secured to the cover outwardly beyond the outermost edge of the bearing housing and configured to form a single-stage rotating seal, the rotatable flinger comprising a first opening being adapted to receive a rotatable shaft (7) and to enable the rotatable flinger to form a compression seal against the rotatable shaft and an outer flange disposed external to the cover to fling material that comes into contact with the outer flange away from the bearing assembly. Since only a single seal (10) is

Art Unit: 3683

used in the invention of Grzina, this is interpreted by the examiner as a "single stage rotating seal." See alternative interpretation below.



Re claim 2, Grzina discloses wherein the rotatable flinger has an inner flange, the inner and outer flanges having a greater diameter than a second opening through the cover, the inner and outer flanges cooperating with a portion of the cover surrounding the second opening to secure the rotatable flinger to the cover.

Art Unit: 3683

Re claim 3, Grzina discloses wherein the inner flange is smaller in diameter than the outer flange. (See above)

Re claim 4, Grzina discloses a grease relief to enable grease within the bearing assembly to pass to a location exterior of the bearing assembly.

Re claim 7, Grzina discloses wherein the bearing insert comprises a plurality of roller bearings.

Re claim 12, Grzina discloses wherein the cover is adapted to form an interior volume when secured to the bearing housing.

Re claim 13 Grzina discloses a sealing assembly for forming a seal between a bearing assembly and a rotatable shaft, comprising: a cover (6) removably securable to a bearing housing (9), wherein the cover is disposed on the exterior of the bearing housing; and a rotatable member (3) securable to the cover and adapted to receive the rotatable shaft (7) therethrough, the rotatable member being configured to form a seal against the rotatable shaft and to rotate therewith to fling liquids or solids that come into contact with the rotatable member away from the cover.

Re claim 14, Grzina discloses wherein the sealing assembly is adapted to form a rotating seal between the rotatable member (3) and the cover (6).

Re claim 15, Grzina discloses wherein the rotatable member (3) comprises an inner flange and an outer flange, the inner and outer flanges being disposed on opposite sides of the cover to secure the rotatable member to the cover. (See above)

Re claim 16, Grzina discloses wherein the inner and outer flanges are circular, the outer flange being larger in diameter than the inner flange.

Re claim 17, Grzina wherein the grease forms a seal between the rotatable member (3) and the cover (6).

Re claim 21, Grzina discloses wherein the cover (6) comprises a rigid plate.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-4, 7, 12-17 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Grzina in view of Hatch.

Re claims 1-4, 7, 12-17 and 21, Grzina discloses a bearing insert (8), a bearing housing (9) adapted to house the bearing insert, a cover (6) removably secured to the bearing housing, wherein the cover extends outwardly beyond an outermost edge of the bearing housing and a rotatable flinger (3) secured to the cover outwardly beyond the outermost edge of the bearing housing, the rotatable flinger comprising a first opening being adapted to receive a rotatable shaft (7) and to enable the rotatable flinger to form a compression seal against the rotatable shaft and an outer flange disposed external to the cover to fling material that comes into contact with the outer flange away from the bearing assembly. However, Grzina does not teach wherein the flinger is a single-stage rotating seal. Hatch et al. teach wherein a rotating seal is a single stage. (Figures 2-7). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have used the single stage of Hatch et al. in place of the double stage of Grzina since applicant has not disclosed that a single stage solves any stated problem or is for any particular purpose and it appears the seal would perform equally well with a variety of stages.

5. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Grzina in view of Tripathy.

Re claim 6, Grzina does not teach wherein the bearing insert comprises a plurality of ball bearings. Tripathy teaches a bearing assembly comprising a bearing insert (16) with a plurality of ball bearings. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have used a ball bearing in place of Grzina's roller bearing since both elements are well known in the art for facilitation the

Art Unit: 3683

rotation of a shaft in a system.

6. Claims 8, and 19-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Grzina as modified and as applied above in view of Motsch.

Re claims 8, and 19-21, Grzina as modified does not teach wherein the cover comprises a peripheral flange and the bearing housing comprises an annular groove, wherein the cover is secured to the bearing housing by elastically deforming the cover to position the peripheral flange within the annular groove. Motsch teaches wherein a cover (28) comprises a peripheral flange and the bearing housing comprises an annular groove (29, 30), wherein the cover (28) is secured to the bearing housing by elastically deforming the cover to position the peripheral flange within the annular groove. It would have been obvious to have used the attaching means of Motsch in the invention of Grzina as a elastically deforming a cover to position the peripheral flange with the annular groove (snap attachment) is a well known alternate equivalent means for attaching two components that is well known in the art and would reduce the number of parts (such as bolts used in Grzina).

7. Claims 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Grzina in view of Tooley.

Re claim 9, Grzina does not teach an external sealing member positionable adjacent the bearing housing and the cover to form a seal between the bearing housing and the cover. Tooley teaches an external sealing member (52) positionable adjacent the bearing housing and the cover to form a seal between the bearing housing and the

Art Unit: 3683

cover. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have used the seal of Tooley in the apparatus of Grzina in order to provide additional sealing means against debris in the bearing assembly.

8. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Grzina in view of Tooley.

Re claim 10, Grzina does not teach wherein the bearing assembly further comprises a second cover and a second rotatable flinger secured to the second cover to form a seal between the bearing assembly and the shaft, the second cover and second rotatable flinger being disposed opposite the first cover and the first rotatable flinger on the bearing housing. Tooley teaches a bearing assembly further comprises a second cover and a second rotatable flinger secured to the second cover to form a seal between the bearing assembly and the shaft, the second cover and second rotatable flinger being disposed opposite the first cover and the first rotatable flinger on the bearing housing. (Fig. 2) It would have been obvious to one of ordinary skill in the art at the time the invention was made to have included a second seal/cover assembly opposite the first assembly so as to protect the internal components of the apparatus from both ends of the housing.

9. Claims 5 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Grzina in view of Uhen.

Re claims 5 and 18, Grzina does not teach a sealing assembly comprising a grease relief in a flange. Uhen teaches a sealing assembly (90) comprising a grease relief (118). It would have been obvious to one of ordinary skill in the art to have applied the teachings of Uhen to the assembly of Grzina in order to relieve excess grease from accumulating in the seal.

Allowable Subject Matter

10. Claims 22-26 are allowed.

(10) Response to Argument

The basis of Applicant's argument lies with the interpretation of the definition of a "single stage" rotating seal.

Re Grzina:

First, Applicant's language wherein the flinger is "**configured to form** a single stage" seal is contained within the context of what the Examiner believes is functional language. Therefore, because the seal of Grzina functions as claimed, the claim is anticipated.

Second, because applicant's claim contains open-ended language – "comprising" in the preamble of the claim, it is not required by the claim language that the seal contain only a single stage. Use of the term comprising "does not exclude additional, unrecited elements" as discussed in MPEP 2111.03. Therefore, if Applicant's claim language is not sufficient to exclude additional stages in the seal. Applicant uses the

Art Unit: 3683

example of a bicycle and a unicycle in the arguments. However, a better comparison would be to describe a vehicle comprising single a wheel. Both a bicycle and a unicycle **comprise** a single wheel.

Third, because the element 3 which forms the seal of Grzina is a single element, the Examiner has interpreted the seal as "single stage" in light of the absence of an additional consecutive seal element in the reference.

Applicant stated that the Examiner has not clarified the rejection. However, the illustration above was provided in the Final Office Action in addition to further explanation in the Advisory Action (01/05/2006) to clarify the Examiner's position on the issues. Element 3 is duplicated in the Grzina reference and used to identify both the seal and the passage. For this reason, the Examiner provided the drawing above to identify the elements.

With respect to Applicant's After Final amendment filed December 19, 2005 sought to further define what a "single stage rotating seal" is in the context of the application. The Examiner considered this amendment as new matter since such a definition was not supported by the original specification to specifically define the structure. Additionally, the amendment was a new issue since such a definition potentially affects the scope of the claims. The Examiner would also like to note that the proposed amendment defined the "single stage" seal as merely the insertion of the flinger through the opening of the cover with a seal formed between the flinger and the cover. In Grzina, the "flinger" (3) is inserted through the opening of the cover (6) an a

Art Unit: 3683

seal is formed therebetween. Therefore, even if the definition were included in the application, Grzina would still anticipate the claimed invention.

Re Hatch, the Examiner has made this rejection using an alternative interpretation of the "single stage" seal. The second stage referred to in Applicant's arguments refers to an additional element (35) not relied upon by the Examiner in the rejection which is, in fact, excluded in the noted column and line. Element 15 is a single seal. Additionally, the seal 15 can be defined as "single stage" for the reasons discussed above with respect to the Grzina reference.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.


Respectfully submitted,

MT 

Conferees:

MMB 

JM 


Melanie Torres
Primary Examiner
8-28-06